Recd Nov 22
Ans Nov 29

Athens Ill Nov 19th 1862

Dr. Geo. Engelmann
Dear Sir

I to day Send you by Express one Set of the plants we have Collected in the Rocky Mountains &c this Season. The Set is a common one just such as we have put up about 40 of except that is fuller than the last 10 or 12. I only Selected one Set for Dr. Gray of larger & more perfect Specimens. I intended to lay out for you more material of some genuses, Euphorbia &c but having an opportunity to send to Express office at Springfield I did not have time to look them up & add them to the Set in the box but if you lack material on any Species let me know & perhaps I can send more as have an overplus of many Species

I want your opinion on the quality of the Specimens throughout as your Set will be a Sample of the whole you can judge correctly of the whole Collection let me have an honest Opinion without reserve Compared with the Specimens of other Collectors Dr Gray is to fix upon the price of the Sets and if you deem them worth the price so fixed I hope & shall expect that you will assist in the ~~Sa~~

Sales at favorable opportunities by
recommending them to the notice of your
Botanical friends at home & abroad &c
The labels are distributed with the plants
from 534 to the the end 534 are distributed
in parcels of 100 in overhauling you can
put the proper label at the proper place
the plant is numbered on the sheet of paper
it lies on & the label to correspond with it
When you examine them let me hear
from you

Yours very respectfully

E Hall

Athens Menard Co.
Ill.

PS have just recd Dr Grays decision
in the case of Dr Parry & ourselves
it is satisfactory to us & I hope there
will be further trouble now
I want to say a word of the grasses &
[illegible] & Cyperacea for want of room
we were obliged to dry them in masses & they
consequently are not as they should be - yet
much of their apparent imperfectness depends
upon the state in which we find them in that
dry, arid, grasshopper region - how do they
compare with others collections? what decimal of 100?

Recd Dec 9th
Ans Febr 10th 1863

Athens Ill. Dec 8th 1862

Dr Engelman

Dear Sir — your letter in reply to recpt of box &c has been on hand a few days — your opinion of the collection is *quite* as favorable as I expected the quality of Specimens would justify they were not made as if intended for first quality Specimens I have also recd from Dr Gray his reply to sample sent him he figures the price at $6 and apparently has a much less favorable opinion of them than yourself in fact has criticised them untill I am almost ashamed to offer them for sale — Says part are ridiculous the Conifera Amentacea &c perfectly valueless — mere tops &c &c that they are distributed too thinly purchasers want surplus flowers fruits &c for dissection — I am feeling rather badly over the severe overhauling he has given me & my cherished beauties have dwindled very much in my own estimation since he says it is much below Parrys of last year - Far below Fendlers & Wrights & summing all its defects I fear it is quite unimportant - The set you rec'd was doubtless just such as sent him for inspection & I am somewhat at a loss to understand how they were so differently appreciated by judges of such things - But enough of this I had bought Harbours interest in the Collection which with the actual money cost of collecting makes my investment in them now nearly $700 but I have plenty of sets such as they are to more than bring that amt if they can be sold at the price fixed by Dr Gray - Dr Gray has decided in the dificulty of Parrys & I suppose he will now soon propose for an arrangement of details when the Collections will be offered conjointly If the sales will offset my out-lay I shall be satisfied & what little

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benefit you are disposed to give by recommending to your European friends the sets such as they are at the comparatively low price of $6 which may be an inducement to many to purchase who would not think of it at the full price of $10 I shall be grateful for all assistance in that way. yet I am not willing or do not desire you to deceive any one by recommending them if they are unworthy in your estimation

There is no arrangement yet made as I understand about nameing or publishing perhaps Dr Gray will do it but he has not yet so advised me certainly of doing the latter

If you have time & opportunity to do so I should be glad if you would name some of the families that you are familiar with in particular the Polygonums Rumex &c I believe are special studies with you. besides others no doubt If I had time I would give you localities &c but if you find with them specie that are new I will give all the inform

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formation of them I can & sometime
may give you a full account of localities
of the pineaple species.

I have no copy of your Synopsis of the
Genus Cuscuta Shall be pleased to get it

Upon reaching home we planted out
our Cacti & I fear we have lost the
most of them by freezing a continued
season of dry cold weather (they having
no establishment for support) I think has
been the cause I trust a part of them
however are not thus destroyed
I do not know what I shall do with
them unless I grow them or perhaps
sell or give them away the latter
most likely — by the way I believe I
did not tell you that I had a large variety
of seeds from the mountains I think
some of them will prove valuable addition
to the cultivated ornamentals & perhaps
some of the grasses in field culture
I hope the sets will soon by the addition of Parry's
be ready for purchasers — in a fortnight perhaps

Respectfully &c E. Hall

Rec Febr 19th
Ans March 1st

499 Rumex longifolius
I have not

Athens Ill. Feb 17th 1863

Dr Engelman

Dear Sir Yours of 10th is rec'd also Synopsis of Cuscuta. Dioecious Grasses & Cactaceae for all of which please accept thanks Dr Gray is now through naming with some omissions & I wish to call your attention to a few things

40. Sisymbrium Canescens. [illegible] Can hardly be that. 41 & 42 he calls Draba nemoralis one I think is not 41 must be different yes. 71 & 76. Stellaria longipes one is not that. See the geniculate branched inflorescence 3-5 styles in one. (72. Stellaria borealis) 77 Arenaria arctica the Short Species the long one is A. biflora (if you have it) have not

left out 121 & 119 he says are both Astragalus debilis which of course can not be. 2 kt 218 var of 216. Can that be so? yes 230 prostrate & ought to be something else. why not? [illegible] 236 no runners cant be E. bellidifolium (I am sure not) 250 & 251 Solidagos look different to me. virgaurea 293 Linosyris Parryi a vastly abundant Species on the Platte & in South Park. Strange it had not been got before. 539 have you a long & short Specimens? there are two here. 532 Gray did not name what is it? A. [illegible]

575 Quercus Gray says ask Engelman. Douglasii var NewMex 573 is perennial and prostrate E. Fendleri 496 & 498 Rumex Salicifolia how can both be the same glands absent, other differences. 492 Polygonum tenue with the pendent fr ought to be something else. I get the true P. tenue here & also in the mts have sent Gray Specimens. 483 with its sessile leaves & hairy looks as if it ought to be different from Oxybaphus nyctagineus 480 Accidentally Omitted from Grays set — What is it?
Arct Nuttallii

1. for those answered Hall's letter March 15

Condensed & Gentiana acuta

473 the large pale flowered Species is distributed through I think find it in Set 16 that I am now looking at got it in the South Park where it was in great plenty at one Station only Considered it when Collected as one of the forms of this rather variable Species I now enclose you bits for dissection of Several forms by which you will see that the Size of the fls varies much as well as general habit the flowers retain their original Color or nearly so — But what think you. Gray calls 468 469 & 470? G. affinis (470? he marks?) the last is your G Parryi that you showed me the cut of & of Course is a good Species. but your account of it in Plt Parryi is not entirely correct it does not grow in tufts but singly always or rarely 2. & generally but one flowered but 3 in robust Specimens. It cannot by any possibility go with either of the others. 468 & 469 I send you good heads of now to show you they cannot be the same (see calyx lobes &c. &c.) Gray did not name the Gilias nor Phloxes, said his herbarium of these was with Torrey. Will you send me the names of Convenient 448 & 449 he says is Polemonium Caeruleum. They are too different in habit, besides there are some good Characteristic differences see the long exsert Stigmas of 449 & sub 3 angled pods. 449 exclusively in Cold alpine & subalpine swamps, 448 in low wet along streams never in swamps. 433 the little spreading specimen is Eritrichium Californicum I didn't see the difference though Gray says toto caelo different the other Echinospermum Redowskii. 411 & 412 castillei only variety difference — but no botanist seeing these plants growing would ever make one Species of them 412 exclusively in swamps — the other not. 405 I think Gray makes a species out of an

Alpine form of this (See Plt Parry's & M.S.) 385. 386 & 390 = Pentstemon acuminatus what think of this whole sale Condensation. is 386 at any rate a very good Species I wish Gray could see these plants growing together 386 fls early before 385 by several weeks & then so very different habit — 373 A high alpine Plantago that Gray says is var of 372. he could not made a greater mistake) they are different Specifically 370 Kalmia glauca var., 690 Cystopteris fragilis mixed with woodsia — 394 Parry N. Sp., 580 what is it? Pond Subalpine fruiting Utricularia vulgaris 574 Parasite Arceuthobium. What?, 561. 562 & 563. he makes all Juncus arcticus which is impossible. 632 Muhlenbergia Gracilis & 642 a variety of it which doubtful. 632 exclusively on sand hills. 642 dry ground fls in July 632 Sept. 634 Oryzopsis Canadensis. dont look like it. (as I have it) 640 Bryzopyrum Spicatum is it, or [illegible] Strictum. 641 Sporobolus ramulosum 643 a variety of it 641? which cant be 643 annual 641 perennial. 669 Poa andina & same as 677. but they look too different. 635. 646. 664 & 685 he says are new to him. 685 looks like a silky long awned var. of Muhlenbergia glomerata I so thought it when collected. he has sent the doubtful grasses to Prof Thurber. he does not name others as 644. 647. 654. 659. 667. 673. 680. He has sent the Carices to Dr Boott I have no names the entire collection of Mosses is with Lesquereux 687 Aspidium Felix-mas. Mr Eaton says new to America by the way have you got in your set under 256 a specimen with glandular pubescence & sharper pointed scales a few of these have been distributed unwittingly with Aplopappus Pygmaeus Gray says is a new Sp. & he proposes to Call it A. Hallii. About 12 sets of the Collection are sold or engaged I believe I hope we will be able to double this number at least. I have bought

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Dr Parrys interest the whole collection is now under my control by the way Dr Parry only got about 15 Speci that we did not I should have thought he ought to have done better being familiar with the locality

I hope to save some of the Cacti except of the Mamillaria Vivipora they will all go. I wish some time when you have leisure you would give me a little information of raising them from seed. I am arranging to have seeds of ~~western~~ Utah & New mexico plants sent to me by this Rocky Mt exploring expedition now fiting out in Nebraska & want to be able to cultivate successfully if possible. I do not expect to collect plants again for sale My health will not allow which I much regret for it is an exceedingly interesting business. You need not send me Grays manuscript I have kept a copy. perhaps Prof Short would like to see it if he has got a set I sent him 3 weeks or more since but I have not heard from him

If you see obvious errors in Grays names to which I have called your attention perhaps you had better suggest a correction before the catalogue goes to press

Yours very truly &c

Elihu Hall

Rec'd March 11th

Do you
study Charas?
I have a few
species I want
determined

Athens Ill.

March 9 1863

Dr Engelman

Yours of 1st was duly rec'd. & so you have disposed of the Gentians well. About the Isoetes Mr Durand & Dr Gray have both written for it for Mr Braun of Germany. I sent all I had to Mr Durand & he writes me that is already on the way to Europe. Durand thinks it a new sp. I distributed largely last year & am now out. I called it I. Engelmanni more from the circumstance of its being found here in the west than from agreeing with the description of that plant in Grays manual — I get it here in my own meadow where water only stands in the Spring season. dig them out of dry ground in July & Aug before the leaves die which they do here but Durand says not on the Delaware. the same plant grows however in an adjacent pond

is deep water where the leaves
are much longer. I can not get the
bulbs now. Couldn't find them.
The 'Isoetes mad Frenchman' as Dr Gray
Calls him must wait for these till fall
when I will get them & send to M D
urand as he orders. I will also get
it in proper state for the herbarium
plentiful & you shall have as much
as you like. don't let me forget this
77. the long form Arenaria biflora. I must send you
119 & 121 Gray in letter Called 121 A. debilis also. I
Called his attention to mistake. 141. is A pauciflora
293 is far more common than 292 the latter
Only seen at foot mts. 293 Subalpine & very abun
dant & variable as to size of fls. 539 the short
one is S. geminispermae. I must send you one some-
time with base & leaves. 533 now. Dr Parry tried
to show me Abies Engelmannii but I could
not see it. I wish you would give me
the distinguishing Characters. I have some good
specimens of Abies grandis I must send
you one. black smooth cones scales entire

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480 are you sure about A. Nuttalliana
it dont look at all like the specimen
I hav of that sp. fr. N. Ill

492 I agree with you all one species
but Polygonum tenue has not f. here
how about that I took it for somethg else
493 You & Gray for that
482 I consider different from O. Nyctagineus
specifically enough. Nyctagineus grows
out there. 496 & 498 well I say nothg after
the circumstance of glands are inconstant
499 Sorry I have not a single specimen for
you that species ran out before 18 the
number of your set
have you under 205 Heuchera bracteosa
a form with yellowish larger fl. &c. Dr. Gray
now decides to call it H. Hallii - will it
hold? Of Grass 684 he says it puzzles
Thurber as much as it did him perhaps
a new genus do you identify it
the Nebraska expedition I hope is not
a humbug I am in the way of subscription
already. Mr Thompson seems a Clever gen

grown man & with energy enough to put it through if they get a good Collector of plants. If you know anything special about it I wish you would post me —

I have sold about 15 sets - the prospects looks dull for more now — the sales have not yet paid the expenses of collecting

I shall have plenty of Rocky Mtt plants to turn some way, not pecuniarily & perhaps I shall want your assistance in arranging for exchanging them for European or other Country) specimens

but I will not go at this just now I hope to get orders from Europe for several sets when they are known there

respectfully

E Hall

Recd May 21st
Ans Aug 25

City Athens?

Athens Ill. May 19th 1868

Dr Engelman

Dear Sir

I am just in receipt of Transactions of St Louis Academy of Sciences with respects &c for which favor please accept thanks

I have yet only found time to look it over but shall be greatly interested in its careful perusal

I am at work now & have nearly let botany have the go by for a little time getting materials & building a house but I yet steal a little time to collect some desirable things. - will not forget Isoetes when the time comes

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have plenty of sets yet unsold no applicant will be disappointed for a year to come for want of supply Do you study the Charas? if you do I want to send you a few species for identification when I make up a parcel for you as expect to do next winter

Very truly

E. Hall

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E. Hall's letter rec'd Aug 24th 1864
ans Sept. 12

Glad to hear Dr Parry is
Safe in the Mountains Does he collect
much I contracted with him for
a good set of all he gets different from our
at $15 per 100 hope he will seen the
gatherings of Durham on the plains,
I read some [illegible]
we have ever your E. Hall

In a few days Dr Vasey & I expect to
make a botanical tour in Mason
Co the Sand ponds & hills where
we expect to find some rare plants,
I want to ask you about some
St Louis plants but have not
time now you get some Asters &
Solidgo I want

My Isoetes pond is dry months ago &
all the Isoetes was dead early in June & I could
not find time to remove any to permanent
water as there is none suitable near me
the pond does sometimes hold water the year
through & then we will see about it I think
I can yet find you some roots this fall
will try — I got your [illegible]
have the same form. a partly terestrial

Enclosed you have the [illegible] of all the
Callitriche I have & all of the Rocky Mt
plants that I did not send Dr Gray
I had but little of it. It looked to me different
from the one I got here there are other
terestrial forms here but I have collected
none of them. I supposed All I find here were
C. verna but I have no glass to see these small
things over

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Rec: Sept 9th
Ans Octob 4th

Athens Ill Sept 8th 1862

Dear Doctor

Your favor of 28th ult was duly received & about the same time one also from Mr Durand on that same Isoetes question And I have just put up for him & the 'mad' frenchman a package of the specimens & the rhizomas or roots that are to be grown in France by the Isoetes crazy Frenchman I have kept a dozen or so for you & will send you the roots also but the living plants have long since ceased to be the last green disappeared from the tops full two months ago. I dug part of the rhizomes 6 weeks or more since & a part recently that I can now only find by the remain of the tops in the vicinity & the holes ~~made~~ left in the soil by the decaying out of the spores & base of the leaves the localities are now as dry as a brick & have been 2 months & partly much longer — so far as I have observed the base of the leaves when *mature* are *all* black — but I have dug none from out of the water as the ponds where I get them invariably dry up before they mature but the *spores* are *perfect*. I am sure we have but one species here with soft & flacid pale green — semi-transparent somewhat knotted leaves flatish & of variable length from '4' to 2 feet or even more owing to the depth of

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the water my Casti neay
all died excep one Species
the largest one with most
prickles (the (name I have forgotten
you got a Specimen of it) of
these I have some 2 Doz Specimens
& Could Spare you a Dozen or
So they bloomed & are now
growing some & I suppose are
in a reasonable good State
I do not know their worth
perhaps 50ct a piece but I
will let you have what I
Can Spare in the way of exchanges
some time from the
increase of your you can
Spare me something that
I will want) it will not
be possible for me to furnish
you the Species of the Set you
have not got your Set was
No 18 I believe, & up to that
No they fell off perhaps 20 Spec.

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we put up 44 sets — the last
falls off about 120 specis
but up to 40 less than 100
the unsold sets are now
my own property having bought
the interest of Harbour &
Dr Parry over 20 of which
are set for sale at the
low price of $6 pr 100
my intention is to send you
a parcel this winter in which
I hope to be able to put a few
things that will be desiderata
the Isoetes & bulbs or roots if
you desire & what cacti I
can spare are subject to your
order I can send you joints
of the Opuntias if you wish
O. Missouriensis O. fragilis
& O. Rafinesquii
my eyes have been ailing for
2 months & am now nearly blind
Sincerely E Hall

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Rec Sept 21st
ans — 27th

Athens Ill. Sept 18th 1862

Dr Engelman

Dear Sir

Yours of 12th rec'd

Our Callitriche Asa Grayii —
look out for retaliation
think of Johny Hookerii
Georgia Engelmannii is
in Store for you or what
means the same thing — but I
do not know the law on these
things nor how much
Symphony may be sacrificed
to the votaries of Science
but when there is nothing in a
name — no matter of course
yet I am persuaded there may be
much in the names of many things
On account of Dr Vasey being
delayed by Sickness in his neig

borhood & family he did not
reach here in time to make
our intended trip, to the Sand
hills & I get no Euphorbia
Geyeri. I have collected
it out there however, before
& I think it quite different from E
petaloidea. I raised one plant
of it a few years ago but
it does poorly on common soil
I have no seed now - I enclose
you E hexagona. E. petaloidea
& E dictyosperma. hexagona
is coming to be too much at home
in my grounds coming up all
the season & behaving very
much as if it should become
a troublesome weed. petaloidea
come sparingly & I do not believe
it will naturalize here
dictyosperma failed entirely to
come from self sown seed though

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nt abundance matured last
e year. I send of last years crop
d I did not succeed with
E montana nor E Fendleri
d We find E Geyeri also on
e. the plains in company with
petaloidea. Geyeri spreads
nt flat on the ground. petaloidea
only decumbent, I get
here E obtusata

I have near 200 of the Rocky
Mt & plains plants growing. plenty
a of Munroa squarrosa but
ne only one plant of Buchloe
ce dactyloides that has not yet
shown fls or fr creeping on
ne the ground ~~now~~ about a foot
oidea long & now growing rapidly
ieve I suppose it will do nothing
with out a partner - I wish I
Could get more seed - I have
h also 2 Rumex from the Mts

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R. longifolius & another
that Dr Gray says is the
same but it is not

I have good specimens &
will save one of each for
you to be sent some time
I have also Asclepias speci
osa and another that may
be A linifolia neither
have yet fruited

Could you get me this
year Aster anomalus
Solidago rupestris. S Shortii
S Drummondii Rumex
Engelmannii &c & lay them
up till I have a chance
to get them

I fear Mary will have
a hard 'road to travel' this
fall. in haste

truly yours
E Hall

Recd Dec 5
Ans — 6th

Athens Ill. Dec 3d 1863

Dr G Engelman

Dear Sir

I believe I have neglected replying to your last letter to me written some time since. I have been so much engaged with business this past summer that I have been obliged to neglect botany & corresponding to some extent. I have been looking for your last but do not find it it must have been mislaid & I am unable to reply in detail. any queries renewed will be cheerfully answered as now I expect to have more time for corresponding & studying plants. I have lately received from Mr Canby of

of Delaware a fine Specimen
of Isoetes riparia Engl & find
it to be very different from
mine & am getting interested
in the genus & I shall dig deep
er in it nex season watch
more closely it growth habit
Could you supply me with a
Specimen of I. Engelmanii
I have a Dozen or so of I. me
lanopoda for you & next year
will get it in large supply
in its extreme states of develo
pment &c I have sent throug
Mr Durand roots in
quantity to the Frenchman
who is crazy over this family
& he will doubtless be growing
it next year for him self
Some time this winter I intend
to send you a parcell of
miscellaneous plants & the Isoetes
in question I have examind

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my Cactus & find them in
a bad State the Species mostly alive
is I think Echinocactus Simpsonii
from what you say of it. but all
are now in such a bad State
that I fear it would not be worth
the while to bother with them I
have taken up a part of them &
shall keep them in a cold room
as you suggest, & give them
a dryer location another year
the roots seem to be mostly rotted
away & the ball its self, decaying
yet they have grown a little in
the Center & look as if they had
life do you study grasses
My rocky Mts sets are in a very
unsatisfactory state of determination
especially the Poa's I would like to
furnish some one a set who is
Competent to analyse them
Correctly this will include several
Species & varieties not in the

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regular Set & Mr Thurbers report) is very meager & he has not reported on the extra or seperate Collection at all there are some 10 or 12 Poas or var that are indeed puzzling Yet sufficient original material would enable most any one to place them properly

In haste
Truly
E Hall

Recd Dec 15th
Ans Dec 16

Athens Ill. Dec 13th 1863

Dear Engelmann

Yours received, the Stamps too bad
Here is the Specimen
Damn it you say all Crushed to powder
Cant help it am just Starting to Springfield for Physician for friend & have no time to do it up right
yes
but will make it right again sometime
I appreciate your Doctor Madness have a touch of it myself

Truly
E. Hall

Recd Febr 20
Ans — 21

Athens Ill. Feb 19th/1864

Dr Engelman

Dear Sir

I to day Send you by express one bundle of plt's Containing a few things that may be of Some interest to you a fine parcel of Isoetes melanopoda the Chara please report to me by the cross. & help all you can whre it may appear wanted

Do you know of any proposed Collections for this year & the parties if so? is Parry going out again?

Dr Vasey has sent me an Isolepis that Gray says 'probably the Same as Halls but it lacks the black foot' & true enough it does besides the bases of the leaves are much narrower I suspect the upshot of the Isoetes question will be, that like Sagittaria variabilis nearly every pond will have a variety of its own & that will be all there is of it.

In haste Yours
Truly
E. Hall.

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Rec'd March 1st **Hall** letter

Opuntia Missouriensis var rutila, Fontana gr fruit

Athens Ill. Feb 29th/1864

Dr Engelman

Dear Sir

Your favor of 21st inst. was duly rec'd the Opuntia matter seems to be pressing & I at once tell you all I know of it I have another flr or two some where in my undistributed plts & I have been looking for them but have failed to find them at this over hauling they are however taken just as the one sent you cut off at the apex of the ovary to facilitate pressing flat. You know intended for var. of color only for the question of difference from O Missouriensis did not occur to me & I take the responsibility of saying now that it is exactly O Missouriensis in everything but color of fls I met with but one plant of it A large cluster growing right amongst the Yellow fld variety within a yard or so of it at least and can give you the exact locality & with the aid of Dr Parry can put you in the way of geting Specimens next summer from the identical plant. It grew about 15 or 20 yards North east of the famous Soda Springs on the Fountain Qua Bouila 2 1/2 miles from Colorado City (from the Spring used principally for drinking on the north side of the Creek). this locates the plant within a rod at furtherest .. Now there is a man named Beach I believe who is apparently somewhat enterprising in this way who is acquainted with Dr Parry & who lives or did live in Colorado city who you can get to find the plant for you & send

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you what you want of it
it was in its blooming stage the 5th
of July when we went there but
fls like the others [illegible]sion
I have not seen the long jointed O
you refer to I know but 3 natives
O. Rafinesquii in Mason Co Ill. O.
fragilis & O Missouriensis on the plains
the latter extending in to the low mts
& even higher in the neighborhood
of Pikes peak Let Dr Parry
tell you who to correspond with
on the subject I may be mistaken
in the name I will enclose you
one of Dr Vasys Isoetes I can get
more from him some time
The best part of my Isoetes pond is
now fenced in to a sheep pasture
& I fear I shall never get more
fine specimens very sorry. I do
not believe my Isoetes lives longer than
mid summer say last June even in
water but we shall see the bases
are invariably black.

are invariably black

Thanks for the Diperia prolifera it is exactly my Gnaphalium palustre? I had not examind its generic characters it looked so very like a Gnaphalium I could think of nothing else

I do cultivate or rather grow plants & like them very much I cultivate as little as possible so as to alter them as little as may be. I have about 100 Spe from the Rocky Mts seeds now growing & am expecting fine things this summer. wish I had seed of the other form of Euphorbia petaloidea

wish my health would admit of another trip South west but I dare not think of such a thing now hope to be able some time to make another collection in the Lower Mts —

Respectfully E Hall

Rec^d Octob 28th

Athens Ill. Oct 27th 1864

Dear Doctor

Your favor of Sept 2d was duly rec^d thanks for the Euphorbia seed i.e. E glyptosperma E. Serpens HBK grows here in my own field. the other will be entirely new to me & I shall try hard to raise it I have but 2 plts of Asclepias Speciosa. neither have yet come in to fl though 2 years old - I hope they will perfect fr next year it is only about equally showy with A. Cornuti A. Sullivantii is quite common here. plenty growing in my own meadow Shall be glad to get the seeds of Buchloe next spring & will not forget to remind you of it at the proper time.

I have some 20 species of

grasses in cultivation from
western seed Several puzzling
Poas - Poa alpina a very pretty
species
I send you to day by mail
bulbs of Isoetes melanopoda
they have grown a little
but not to injure them
I hope I was not
aware they started so early
in the fall
Dr Gray writes me that he
has heard from Dr Parry
he is coming home - did
not get to the top of Pikes
Peak I hope to get a set
of his new things at an
early day

I find the shrews or mice
are fond of the bulbs of Isoetes
an on account of their ravages
it was with difficulty I

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obtained the few I send you
I am partial to the Asters
Could you send me seeds
sometime of A. anomalus
& oblgi

truly yours

E. Hall

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Recd June 21"
Ans June 25

Athens Ill June 19th 1865

Dr Gray

Dear Sir

your pkg with Callitriche Austini is recd very nice - much obliged Its habitat is very strange

I put up & send you by mail to day the Cornus & Viburnum I have in fruit my herbarium is far from rich & can't supply you with much I also put in some small Isoetes just collected All the Isoetes here now is on dry land the water of the ponds notwithstanding a few light rains lately has continued to recede rapidly Isoetes on the driest ground is now drying & the mice are already engaged in diging out the spores (bulbs?) for food I suppose these are apparently well formed & I don't see why not mature the

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plants the water has recently left are
now rapidly forming bases & will
no doubt perfect spores - before
they are entirely dead at top

All the localities I know of
are under water in Spring
an inch or more but some from
the nature of the ground leave the
water very shallow. as a dead furrow
in my meadow left after sowing the
seed was full of Isoetes but none
on the level smoothe harrowed ground
around the little water standing
for a time in the furrow suited it
but not the ground around that
was not under water at any time
Euphorbia petaloidea I think wants to
sown in the fall as it comes up freely
from self sown seed also E hexagona
E dictyosperma is tender & does
not self sow I will send you
more seed of each this fall
I have got up 4 plants of your

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E Glyptosperma. if you did not make mistake in labeling papers you sent also at same time E herniarioides which I did not sow as it grows here & what I have now up for the former looks to me in its young state just like herniarioides spreads flat on the ground. is it genuine?

My Buffalo grass did not mature seed.

The growth of Isoetes as I have observed is early starting with the first rushes that appear in the ponds at first all under water where the water is shallow the leaves grow shorter 6 to 10 inches. when deeper 10 to 18' when they reach the surface or at least when the water falls from them the long leaved specimens drop their leaves on the water & float them till they the are left by the receding water prostrate on the bottom unless upheld by stouter grasses with which they grow

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the leaves Shoot above it more or less in proportion to its depth in the deepest water they often do not reach the surface untill it falls when they become exposed in Shallow they of course Shoot above it at once-

the above is all I can say on Isoetes at present but I will try & get some more Specimens in a week or two but I am very busy) with my Sweet potatoe crop now

I have Still one old plant of Mamillaria vivipara & hope to raise others & enough of Opuntia Missouriensis fragilis & Rafinesquii; any others would be very desirable at any time when you have more than you want of them) Ever yours

E Hall

Recd Jly 11th
Ans Aug 13

@ Athens Ill. July 10th 1865

Dear Engelmann

Dear Sir

Yours of June 25 rec'd

I have been out again after the Isoetes All dead entirely - have dug a quantity of the roots to send to E. Durand for Durieux of Bordeaux France - If you want any Can send you some - will put in a few - may be will not dry too much without packing - The young plants do not come to a Spore bearing age the first year or not so to any extent I put in some yearling bulbs they are very small - every thing is dry here - rain much needed - Ponds all dry 2 weeks I have got one Stock of Allium Cernuum that has 4 Scapes bearing umbels it probably has 4 bulbs now - next Spring or this fall will see & if so will divide with you - It is quite a

a giant in Cultivation being 2 1/2
feet high with large nodding umbels
I have also Allium Stellatum
but A reticulatum I have not
& if you can spare me a bulb it
will gratefully recd & properly
appreciated. I have dried specimen
from the plains where it is very abund^t
& showy at some localities with its
purple & very fragrant fls. Dr Gray
Calls it A angulosum one var.
There is another very large Allium growing
in the northern Counties of Missouri in
clumps appearing as if having spread from
a Center 2 feet or more high, in the
prairies quite showy in fl. I saw it frequ-
ently in 1856 but did not get bulbs.
Should much like to have it.
Euphorbia glyptosperma is right the
plants now show good characters. Should
like to know all about it now - native
habitat author &c
I have not succeeded so well as I hoped

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to do with the Aster & Solidagos you sent
but one Aster & one of one of the Solidagos
are now living & give them much
attention & care – but our season has
been awfully dry & hot perhaps in
Spring or fall some time you will
be at the locus again & will have
the goodness to let me try again
The fr of Viburnum nudum – was
detached from specimen rec'd from
Mr Canby perhaps he was mistake
& I now so think after comparing
with lantanoides 'the southern
Ill specimen of V prunifolium is V Lentago
Dr Vasey so called it – It has
much narrower & more pointed leaves
than I have seen for that species
& what we have heretofore called V
prunifolium must hereafter be
V Lentago. the only species in this region
If what I call Cornus asperifolia
is not so what is it – hardly C paniculata. if so very variable

Do you grow Engelmannia pinnatifida? I do — & is blooming since April (from pot) & still continues one specimen survived the winter out doors & has been several weeks in bloom— Seed rec'd from Thompson England

Ever yours

P. Hall

Recd Aug 29th
Ans Sept 2d

Athens Ill Aug 27 186

Your note 23 is at hand & I have just put up all my Juncii except some European material scattered around that I can't just get my hand on & which you probably don't much want or have no doubt and send by mail to day. Juncus ensifolius differs so far as I could see in the growing state which does not so well appear in dried specimens in its soft flaccid terete culms whilst the J. xiphoides has flat culms & more scattered panicle generally, they may run together. But the 3 specimens I put in the sets that Dr Gray calls all J. arcticus I still think notwithstanding are all good species. You will find some errors in the naming of my specimens perhaps many. I have not given the same

but little study yet —
Name them all correctly including
the California specimen &
return some time — in no hurry
for them — I can send you but
little additional Qty the material
having sent all nearly I had to
Mr. M. S. Bebb of Washington City last
winter who was then engaged on
the genus & from him if he will
spare the material you could no
doubt get sufficient to clear up
doubts & he probably will
at any rate loan it as he
writes me that he has quit it for
the present having been greatly
bereaved by the loss of his wife he
seems to have lost his usual love for
the Science — Juncus tenuis is
very variable I hope you will separate
& characterise some of the vars. I could
not find all for you. I have been
puzzled with in former years

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You ask in a former letter about Isoetes now - yes it has been Submerged since it dried for weeks but yet is very quiet it will Start a little later in the fall - as usually does - yet not a fiber has started from the root. Thanks for the Allium bulbs I will send in the fall Silphium & Allium Cernuum Asclepias Speciosa & any others that I have you want. I have a poor head of fls only of the Allium in Northern Mo I forgot to put in the bundle of Junci or would have sent it. but it would show little. the Species is remarkable for being very showy in fl. & from growing in Circular patches from a few feet to several yards in diameter in the prairies & vies with Phlox pilosa & Tradescantia virginica in floral attractions yet it is Scarce only plenty in its localities perhaps you would meet 3 of them in a days travel

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in the northen Counties of Mo
I suspect it is some large form
of the Species you send me —
Yes I want Froelichia gracilis — I am
planting every thing I can get — it will
be company for my Froelicha Floridana
& I also want that Texas Solanum
that has laid so long in the ground
to grow & compare with my S. rostratum
that does finely here — do you want
seed? & this year also I had the
misfortune to destroy with the hoe
a single plant of Euphorbia
Lathyrus that come up whose seed
was planted at least ten years
since & where no plant has ever
produced seed — & I have reason to
believe the longevity of Argemone Mexicana
is also very long in the Ground
My Buffalo grass is rampant now & is producing a new
crop of fls & what is remarkable of both kinds 2
staminate spikes have appeared — one from the same stool
with pistillate — so it seems is not entirely Dioecious
this question sexes is interesting — Yrs E Hall

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Rec.d Oct 31st

[illegible]
[illegible]
[illegible]

Athens Ill. Oct 30/1861

Dear Engelmann

Yours of 25th is at hand with Seeds of Frolichia gracilis and also the roots, seeds and most of all Nymphaea tuberosa - Many thanks - I shall try hard to grow them all - though they come rather dry to live I fear in part - but I have a plt of Aster Anomalus now in bloom It is very distinct & fine. & on Solidago I forget (or rather lost the name) - I find the same here & mistook it for a Soft pubescent form of S. ulmifolia And also to my great pleasure I find this fall I have one small plt of Callitriche Austini - Some feet from where I planted the remains of what you sent me - that must have come from Seed

I also have just recd from Dr Gray notice that he would visit me

but his letter has been so long
on the route that I fear he has left
Springfield before he rec'd my reply
if he is in St Louis when this
reaches you please say to him
that I shall be very glad to see
him. & hope he will return by
this way — I shall be glad to
welcome him & show him round
and every thing of interest

Allium Cernuum has been taking
a rampant 2nd growth & I have
been waiting for it to get quiet before
I took it up to divide with you

Any thing that you want that I
have don't hesitate to ask for
it will be cheerfully given

I have a 100 or so western plants
living — Aster amethystinus. Hypericum
Scouleri. Artemisia frigida — Pentstemons
Eriogonums &c. &c

Killing frost Saturday night
hope it will kill the ague

too — we are all sick up here
I am just recovering from the 2d
attack

no time now to look at the
Juncei will look them over
& tell you — soon —

Am this momt sending this
to the office 2 miles off &
I must not stop it to look them
over for I hope to get word
to Parry before he leaves

Very faithfully yrs

E Hall

65 252 75
64 45
60 6

E. 303 75

Cash 114 80
Dom 2 15
116.65

462 70
339 25
123 45
116 65
6.80
18

Nov. 1 Dom 20.5

463 70
346 75
116 95

Rec^d Nov 18th
Ans same day

Athens Ill. Nov. 16th 1865

Dear Engelmann

Yours of Nov 10th is at hand Yes my Solidago is no doubt Drummondi broad Softly pubescent leaves. Was Parry at Springfield. Ill? — Have no Woody Artemisia growing. Only A. frigida — A Dracunculoides in — have examined my Juncus Cant find anything with 2 or 4 to represent Parryi only the 2 forms of Juncus & very little of the green headed Spec form mostly of the close headed spiked Calyx form. all come from the mountains the green head from icy cold pools on the Platte high up in the mountain I collected it for a distinct Spe if mature which I suppose it was not could get but little of it — the Striped Scaled Sp I think come from the South Park but am not quite sure of this

the Striped sepals is remarkable
yet it must be tenuis - there are
not less than 5 forms of it here
that need characterizing as varieties
the species is very rare out west
will get Fresh next season
in Complete Specimens - rootstock
I will defer sending you any
living plants till Spring
& then I will send an Express
package enclosing many Rh. M
Ops for your Missouri Botanical
Gardens. & now what about that?
I saw recently in a news paper an
account of an individual enterprise
in that way a Mr Shaw I believe
who had brought at great expense
many things from all parts of
the world together for the pleasure
& enjoyment of the citizens of St Louis
who freely opened it 2 days in a week
to the public. is this the Garden you
allude to? — My Allium Cernuum
is still green & I claim doubtful

If it will be fitter to remove at all this fall or Spring if it should escape dying out right this winter, I enclose you some seeds for the present is the next best thing I can do for you.

You asked in a former letter about Bolanders flat leaved brown headed Juncus. The sheaths are stipulated (membranaceous) just as my Rky Mt J. Xiphioides. only Bolanders plants are every way much larger and one that you call J. Xiphioides var parviflora. has a much more scattered panicle - wish you had retained them till all had been correctly determined and named

Bolanders J. effusus is also a remarkable variety - its condensed brown heads

The 2nd crop of Isoetes melanopoda when in water is now making good cases & spores - plants that come from the spores in July are now

maturing spores — though quite
small. — Clods turned up by the
plow before the rains set in last of
June have sometimes dozens of seedling
plants on them all with spores and
apparently mature 2 weeks ago
when out of the water which is gener-
ally the case now. — for we have
been having near 4 weeks dry weather
the leaves are not readily killed by frost
I sent Mr Wm Canby of Penn-
some who says it proves to be only
I. lacustris! — but does he know?
There is no rigidity nor fragility
about the leaves — neither are they
always in the water — I have
no specimens of lacustris
nor none undoubted authentic! of Engelmann

Respectfully
Yours
E. Hall

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Recd Dec 7
ans ~~march~~ 13 Athens Ill, Dec 5th 1865

Dr Engelman

Yours of Nov 18th

~~Enclosing Isoetes — well — I cant see — your German I echinospora & Niagara I echinospora look to me too much alike and still less a like than your German I. lacustris & I. echinospora. and all three of them might so far as I can see go with the Species that Mr Durand sends. also Mr Canby from the Delaware River below low & high water mark and Called I. riparia and also with a long leaved Specimen I have from Delaware that Mr Canby Calls. I. Engelmanii I. melanopoda is the only Species I have that seems different enough for Specific distinction but yours & most all I have are too immature & spoiled by pressing too hard~~

I send you to day by mail a package Containing numerous Specimens of our plt. in many of its Stages of development & forms

In the top Sheets I put in young Specimens and good mature Specimens — which if you like you Can send your friend Braun as a wet sheet application for his Isoetes fever. Showing some at least of the usual characters used for specific distinction are worthless. form of bases depends entirely on circumstances of situation of bulb. if it is at or near the surface they are often twice as wide as long. but if situated deeply in the hard clay they often become twice as long as broad. nor is the length of leaves of any account or breadth either both depending on condition of season depth of water & richness of soil. the Prairie ponds producing in every way larger plants

The material I send you will enable you to work up an account of the development of these interesting plants - I have no microscope And if these interesting facts have not already been given to the world I wish you would take it in hand and by figures & discription show us the process. perhaps I can aid you a little by my naked eye observations

Vegetation of the spore commences by its enlargement soon showing a two lobed organization - in the process rootlets issue from its lower parts & sides of each lobe: the spore splits

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above & the leaves come out - the growth then is by a continual enlargement & the formation of new leaves & roots - the Spore is Soon divided by the inside development of ~~a new forking~~ the growing Corm which displaces it and pushes it outward on opposite Sides of its base where it decays - This new Corm appears to be only for the Support of the present individual generation and preservation of the plants existence from One Season to the next for when new growth commences from this Corm it Soon divides at its base in the middle and the new inside development pushes it outward & upward on opposite Sides of the bulb when it decays away at each generation of the plant - the plant is really an annual every part dies roots as well as top annually. all but the Simple Corm. which in this respect is more in Character with a Seed than root. analogous to & probably more nearly related to the Corm growing monocotyledonous Phenogams (Arisaema. Symplocarpus &c) than Cryptogams. Isoetes is Monoecious also. - See if this relationship does not exist -. Most of the Specimens I Send I

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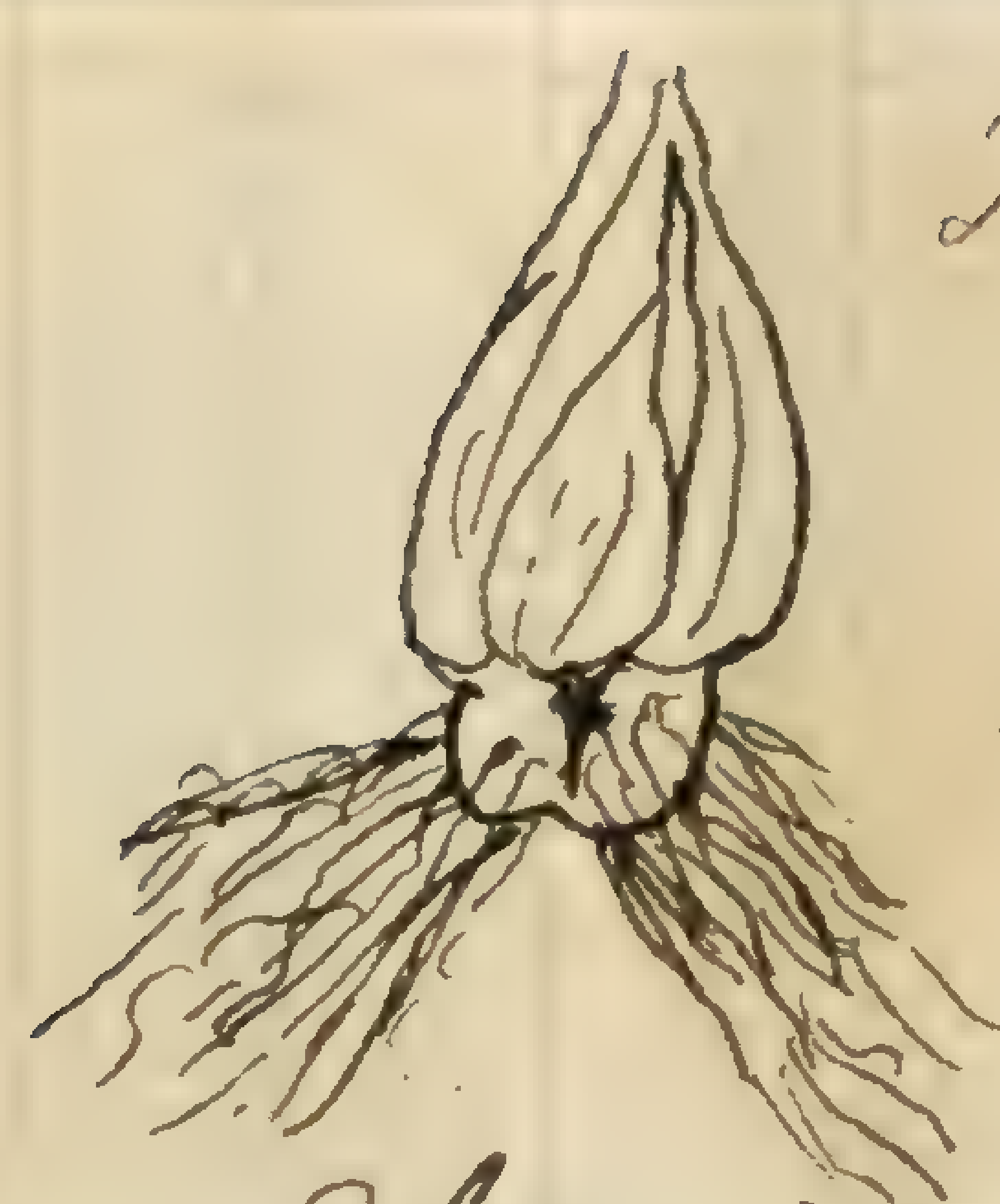
are from Spores since 1st July - You want to know how I know that of course - I know it from these circumstances - where the Plow was running during that exceedingly dry spell of weather in June every green thing of course was entirely killd - and on clods of earth turned up at that time by the Plow half the size of your hand there may be 20 Specimens frequently crowded very close together - take this clod say 3 inches deep and commence paring with a knife horizontally at the bottom you find nothing at first - you soon reach the lower extremities of the roots & at last from 1/3 to 1 inch from the surface of the clod you find all the bulbs arranged horizontally. Showing that the Spores only that happened to be at the same depth from the surface vegetated - there is no doubt with this proof of it. it is a fixed fact = the young Specimens sent from Spores I send you come up much later recently in the bottom of the furrows where whilst the water was standing in them could not vegetate - having come up since the rains ceased & the water dried up the older Spore bearing Specimens are on the ridges made by the Plow - I. melanopoda has a good name - the bases are generally black when mature. the Pale colored exceptions are merely constitutional variations - I have no bulbs yet for Braun the Plants were not mature - See Slip



Isoetes melamp

E. Hall.
Dec 1865

Showing natural
position & direction
of roots in the Soil

This drawing was originally
clipped (under a note by
E. Dennison) to the Elihu Hall letter

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Recd March 13th
Ans same day

Athens Ill. March 12 1866

Dr Engelmann
Dear Sir

Last fall I sent you by mail a large parcel of Isoetes melanopoda be— not having heard from you since and as it is now about time I should send you those roots you have been asking for — I write to know if you are still living & wanting them & to write me the names again as I have probably forgotten many of them

respectfully
E. Hall

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R Apr 2d
Ans April 10

Athens Ill. March 28th 1860

Dr Engelman

Yours of 13th is recd Weather permeting to morrow I I Shall go to Springfield & Send you by Express a box of perennials 50 or 60 Species mostly from West of the Missouri — I hope your friend Shaw will be pleased with them — what you dont want — I Send you half I have of Allium Cernuum. You will find it very distinct from Stellatum You wont be Converted to my Erodes theory — well Cant help it — but it is true — the Corms might be easily enough destroyed after growth has Commenced by plowing them up or under — they only last one year — but are renewed annually — as I befor Stated the modus operandi [illegible]

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I can help you a little
with your Juncus — not much
I will get for you Juncus
tenuis in 2 or 3 forms J. aequilongus
(so called by you) & J. brachycarpus
provisionally so named by you — the
green headed sp. to the extent &
in the States you want
but one other sp grows here J
scirpoides or paradoxus — you have left me
in doubt which it is. but it is so
large that to get out by the
roots & dry 120 specimens would
be an immense job — more than I
will have time to do this year
you will necessarily be several
years with the work — to get all
the species from Western America
to the extent you want will hardly
be possible at all, I should
think

The J. you say ought to be J Canadensis
is from Jefferson Co. N.Y. J marginatus

grows in Mason Co Ill but
not nearer as I have found
& what you may think is strange
is tha J. Buffonius does not
grow at all in all this region

This Allium Cernuum I send
you is from the Rky Mts
grows here in common garden
soil — very large

Respectfully
E. Hall

P.S. The tubers of my Nymphae
have rotted & my Callirhoe Austria
is dead entirely. by the winter
& many other things that I valued
much — everything from California
grasses & all entirely destroyed

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Rec'd June 2d
Ans June 5

Athens Ill June 1st 1866

Dear Engelmann

Your letter & the proceedings of your Society are both rec'd Many thanks I have been out this morning and got the Isoetes for you & send to day by mail I find no young plts - (i e) plts from the spores this Spring probably the spores only germinate at a higher temperature than the Spring months afford no time now to talk about it I will only say that my last seasons observations I still adhere to The plants I sent you have indeed behaved strangely I cant account for it - I am sorry - perhaps was killed with too much *water*

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the Pentstemons here are all hardy & now in fine flower — Of those you sent me last fall Allium Stellatum one plt will bloom soon & I have fast & sure - Aster anomalu & Solidago Drummondi but the others are gone. to my great delight however I find Callirhoe Austriana coming up finely from the seed I plant all the seeds I can get & shall be glad of some from Arizona & will do the best I can for them & divid results with you if successful - though now ~~to~~ late to be hopeful - I was geting 600 species from the Botanical Garden at Bordeaux - but I am sadly disappointed only having heard of their shipment

Several months ago — & now
too late

I have not yet had time to
study your article on Junci
only glanced at the new Sp

Where is Dr Vasey now?
Ringwood or Richview

I will get for you Juncus
the Species I before mentioned
which is I believe what you
now call J. Canadensis. J
Tenuis. & the green headed
Species — J. fraternus — though
by reason of the dry May the
latter will be below average in
all its characters. This is all
I can do this year

Ever yours E. Hall

Recd July 25th
Ans Aug 28th

Athens Ill. July 23d 1866

Dear Engelmann

Yours of 13th is at hand
The Closed globular Corolla is a good Character of the Sp. - although more or less expanding in bright weather at maturity of Stamens but never spreading wide as in ~~Stellatum~~ the Stamens in healthy Specimens are about altogether equally protruding - this year the plant appears sickly I fear I shall loose it. the Sp is certainly a very good one & quite distinct from Stellatum which I also have growing - the latter you know has erect heads Cernuum invariably noding

That Juncus brachycarpus I have only about enough to make 60 Specimens the amt I understood you to want. Of J. Canadensis about the same and often is hardly any neglected it too long - besides on account of the early dry weather the Juncii have been abnormally developed this year & have suffered the loss of their leaves in part before maturity — as you are not to Complete your sets this year I could probably do better next year with all the Species here. if this will do let me know in due time

- what a long knotted running root stock J. nodosus var megacephalus has - it would be a good days work to get out & press 60 Specimens of that

yes I have got your Juncus paper in the Transactions as I wrote you before I believe with thanks I shall be glad of the other when ready. Isoetes melanopoda is all dead entirely the Summer

here thus for though Seasonable
on the whole has been dry & the
numerous Isoetes ponds have long
since dried up & many of them
planted in Corn – all dead
too before the young plants –
(not of this years germination)
matured their Spores. probably
some of the older ones have done
better in this respect – the ponds
are getting well watered now by
Copious rains & if they Continue
I shall soon expect to see plants
from the Spores. and also from the
bulbs again. I will be looking
I enclose you a bit of Euphorbia
from California Seed – that
might as well as not be E.
Dictyosperma or E. obtusata as to
generally appearance; but the seed shows
it to be neither – some of which I enclose
what name? – some time at leisure
Ever yours E. Hall

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Recd Sept 18
Ans Oct 4

Athens Ill. Sept 15th 1866

Dear Engelman

Your last has been
some time recd Sorry you could
not find it Convenient to Come out
when at Springfield to See me
I Should have enjoyed your Company
well and had much pleasure in
showing you what little I have
of the Isoetes ponds — if Opportunity
should offer again Please avail your
Self of it — Shall be glad to offer our
humble hospitalities as long as you
like — I have just been looking
at the Isoetes again the tops have So
entirely disappeared dead & washed or rotted
away by the rain that it is now vey dificult
to find I enclose you a few small bulbs
from last years Spores! Some of them just
Starting to their Second or fall growth — this
growth I believe to be usual with the plant

Rec^d Sept 18 1866

not like the Second growth of last
year that commenced from Spores & bulbs
in early July — This year so far I am
unable to find a single plant from Spores
The Season upon the whole has been moist
& the localities never to be called dry — yet
since the hot weather of Summer killed
or matured? the first or Spring growth
the bulbs have shown no signs of growing again
until now a few of them are starting. which
as I before said is not unusual in moist
Autumns. this growth will survive
the winter at least in part & be
completed next season — the same
in this respect as the earlier maturing
perennials of other plants. the proper
time to get the bulbs for transplanting
or shipping is in end of June or July
when they can be found by their tops &
are then dormant. The enclosed that
will probably reach you dry will show you
well their bilobial character
I promise to attend better to the

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3/

Juncii next Season if life is Spared — in the mean time any Suggestions for them will be attended to in Season

That Euphorbia must be Something else — the Smoothe Seeds of dictyosperma distinguish it from this · besides there are Some difference in habit & time of maturing — I grow both of them

I hope you are now comparatively free from Cholera

I am pleased with the way you honored the President and party —

The scabby treatments he received at the hands of the radicals at Springfield is by no means the Sentiments of honest masses in Illinois

We are having a protracted Spell of miserable wet rainy weather much to the obstruction of business in every way & the ripening of the Corn —

Ever Yours E Hall

Thanks for the Sida hispida
new to me
And that malvastrum angustatum
is entirely unknown to me even by
description — J nodosus var megacephalus
is I think partly propagated by the tubers
of the root stocks that is the growing
points of the creeping roots. but the
knotted stocks are not always with eyes
I believe. but I must look further
& will try to see them this fall
when work is off hand
Does Dr Parry talk of going west
again? I have not looked
far enough in to Isoetes to say certainly

how the old Corms are disposed of whether
by exfoliation? as the bark of trees or if they
exscoliation!
are used in the reproduction of new corms
as in true corm growing plants
Quite probable the former

Recd Oct 16
ans Oct 30

Athens Ill Oct 14th 1866

Dear Engelman

Yours recd last week
I send you by mail to day a little parcel of Isoetes Just dug out Some of them are from Spores but most of them are yearlings I suppose they will all be dead enough before they reach Europe - in their present growing State

The wet fall has Started them as I Suppose is usual under Similar Circumstances they survive the winter in their present growing State & mature next Spring

I discovered this Species in 1853 - but in a very unbotanical way was making brick with a party where the clay was taken from a place of its growth & there first found the bases with their matured Spores I had often looked for the plant described as I. Engelmanni but had not be fore made it out I at once refered it to that Species and as that plant had always sent it out I Con not Say how it got in to the hands of Gay & Durand escept through me I have sent it out Years ago

I dont know when Dr Vasey discovered the plant at Clinton Iowa nor do I exactly know that locality I have the plant from him from Ringwood Ill. Collected in 1863

Allium Stellatum that you sent me bloomed here in July but matured no Seed it Certainly behaves queerly to be blooming in Sept with you were the leaves still green at that date?

Yes we had frost on the 21st ult & the next too killed Corn blades in localities - little damage otherwise Nothing Can be nicer now than the weather for the last Eighteen days with out any rain

Yes we will outvote the radicals if we Can but they Seem to be So much inclined to their old notions of negro equality out east that we can not be too Sanguine yet a practical application of their doctrine will I fear be all that will Cure them - a nauseous remedy truly but the disease is a bad one

Am very busy now - am looking forward with much impatience to a leisure time in the winter to Study & enjoy my much loved Science

Ever yours

E Hall

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Rec. Nov 6
Ans Dec 5

Send by Express today from Springfield Ill bundle

Athens Ill Nov 5th 1866

Dear Engelmann

here are the Juncei — Could have sent them before only I understood I was to retain them until after another years Collecting — to complete the numbers — I want only for my trouble a set when completed The greater question is geting important. indeed how shall we all get Specimens of other American Species? — wont you collect them for us. as you are the Juncei. get them plentiful so as to give us enough to spare some for tearing up for our own investigation. — the principle differences is only to be found with the Spores

Ever yours E Hall

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PS I sent 27 Species
of California plts raised
from Bolander seed
this year Can you
name them & send me the
names with the numbers?

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Rec^d Jan 2^d 1867
Ans July 14

Athens Ill. Dec 30th 1866

Dr Engelman

Yours of 5th Inst was duly rec'd. Thanks for the names so far as they go of the California plts. I ought to have sent their seeds with others that I had collected for Shultes with the plants I sent him through Dr Gray for his Cichoracea sets full sets of 60 specimen of the 2 Macrorhynchus and the larger Calais & in part of the smaller from which he can no doubt get mature seed) besides other Cichoraceous compositae I also sent him last year — I am to have a set of Cichoracea in payment I could send you some of several species of seed for him if you will be sending him. how do you send from St Louis your parcels to Europe? if as cheaply and conveniently as from the sea board, otherwise I had better send them to Boston but now it is too late for Dr Gray has already sent him the plts & will not

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probably be sending him again
I will get you the other Juncus
next year and in better State I hope
if the Season is favorable
I Cant now tell you the exact date
of Collecting the Specimens I sent
you. Some time in the begining of July
in part & later for a portion of them
of fraternus & brachycarpus. the
Soil is a white Semi quick sand Clay
Such as abounds in this region in
the vicinity of Prairies. the Characteristic
tree is Carya alba. the vicinity of these
Juncus & Isoetes ponds are known here
as hickoy flats. the Soil for cultivation
is nearly worthless - the most Characteristic
plants growing with the 2 Junci above
mentioned are Eleocharis obtusata & tenuis
Gratiola virginica Ilysanthes
Centunculus minimus. Aster dumosus
Cephalanthus occidentalis. Cuscuta tenuiflora
Carex vulpinoidea. the Ponds more properly
so called afford Isoetes melanopoda Ludwigia

Polycarpa. Gratiola Sphaerocarpa - Ammania humilis & latifolia - Callitriche Asa Grayii Ranunculus Purshii - Potamogeton heterophyllus; & the "inevitable" button bush - before named besides other aquatic Species too numerous to mention. I believe no Isoetes matured here this year at any Season - the early dry Summer destroyed the first crop & the subsequent ones did not come to perfection as last year - in fact the Season seemed every way wrong for them - their localities seeming to have been overgrown with grass & weeds which was perhaps the cause of failure

I shall be glad to get the Specimens you have for me

Yours truly

E. Hall

Isoetes Melanopoda E Hall

July 8 1878

male 1st locality 41 } 75
2d loc 9
June 20 25
fem 1st local. 75 } 117 } 192
June 20 34
2d local 8

Monoecious

nearly male 1st 19 } 36 } 69
June 20 17
2d

female with 1st 5 } 33
developed June 20 23
but ~~mostly~~ always less 2d abnormal 3
than male 2
except the 3 abnormal ones

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ST. LOUIS, MO.

Age,……………… *years,*……………… *months,*……………… *days,*

(SINGLE.) **(MARRIED.)** **(WIDOWER.)** **(WIDOW.)** Cross out the words not required.

Cause of Death, ……………………………………

I CERTIFY that I attended the person above named, in…………………… *last illness, who died of the disease stated, on the date above named.*

…………………………………… *M. D.*

(Address,)……………………………

Place of Burial, ……………………………………

……………………………………*Undertaker.*

Office Health Department,

St. Louis, Mo.,……………………*187*

I CERTIFY that I have examined this Certificate, and find it to accord with the requirements of the Board of Health.

……………………………………*M. D.*

Clerk Board of Health.

☞Sextons receiving Burial Certificates without the signature of the Clerk of the Board of Health, will subject themselves to a fine of Two Hundred and Fifty Dollars.